

## FACT SHEET



BMDO FACT SHEET 308-00-11

Replaces Fact Sheet 308-00-02

## SPACE BASED LASER INTEGRATED TEST EXPERIMENT

The Department of Defense through Ballistic Missile Defense Organization (BMDO) and the United States Air Force's Space and Missiles System Center (SMC) is researching approaches to improve the nation's missile defense system through a project called the Space-Based Laser Integrated Flight Experiment (SBL IFX).

Project objectives include a research effort to advance and demonstrate the feasibility of the SBL concept and its technologies. This will culminate in a ballistic missile defense demonstration in space, and include an assessment of non-BMD mission utility. The entire project will be conducted in a manner compliant with the ABM treaty. Data from the SBL IFX will be used by the DOD to assess the cost and utility of an operational SBL system, and decide whether to pursue an acquisition program for the development of this operational capability.



The project includes technology risk reduction efforts to develop key SBL components in the areas of laser, beam control, beam director and acquisition tracking and pointing. These components will be integrated in a series of ground and airborne tests to validate technologies at the component and subsystem level prior to the building of the SBL IFX flight vehicle. A new System Test Facility (STF) will also be built as part of this project, to meet the unique requirements of integrating and testing the flight vehicle. Thorough end-to-end ground testing of the vehicle will be conducted at the STF prior to flight to reduce risk and create a database for analyzing on-orbit performance.

The Air Force, as BMDO's executing agent, contracted with an industry joint venture on Feb. 8, 1999, for the design, development and testing of the SBL IFX. The award constitutes the first increment of a Cost Plus Award Fee contract valued at approximately

\$3 billion once completed. The first increment, representing approximately \$127 million in funding, initiates tasks to be conducted in the first 18 months of the effort and immediately undertakes baseline development activities and test facility planning as well as an affordability and architecture study. The second increment, through November 2001, will accomplish a System Requirements Review, System Design Review, and refine the Total Demonstration Cost Estimate.

The joint venture, named Team SBL IFX, was formed on Feb. 8, 1999. The joint venture is comprised of three corporations, the Lockheed Martin Corporation, acting through Lockheed Martin Missiles and Space in Sunnyvale, CA, the Boeing Company, acting through its Canoga Park, CA, offices; and TRW Inc., acting through its Space and Electronics Group in El Segundo, CA.

SBL IFX builds upon a successful twenty year history of SBL related technology development. The Defense Advanced Research Projects Agency initiated the SBL program in 1977, which was later transferred to the Strategic Defense Initiative Organization in 1984. Soon after SDIO was restructured as BMDO in 1993, the SBL Program was selected as BMDO's only directed energy program. In May 1997, a Memorandum of Agreement was signed assigning the USAF as BMDO's executing agent.

The program is managed by the Air Force Space and Missile Systems Center (SMC) at Los Angeles Air Force Base, Calif., and is jointly funded by the Air Force and the DOD's Ballistic Missile Defense Organization at the Pentagon in Washington, D.C.

SMC is the center of technical excellence for developing and purchasing military space systems and manages more than \$56 billion in contracts. The center has an annual operating budget of more than \$5.5 billion and employs about 3,400 people worldwide.

 $For more information, see SMC's web page at \ http://www.laafb.af.mil.$ 

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